



AVVISO DI SEMINARIO

Mercoledì, 23 luglio 2014, ore 10.00

Sala Asinelli – INFN-CNAF

Via Ranzani, 13/2, Bologna

Fabio Capannini
(INFN-CNAF)

Orchestration in OpenStack with Heat

Abstract:

OpenStack is a free and open-source software cloud computing platform. It is primarily deployed as an infrastructure as a service (IaaS) solution. The technology consists of a series of interrelated projects that control pools of processing, storage, and networking resources throughout a data center, able to be managed or provisioned through a web-based dashboard, command-line tools, or a RESTful API. It is released under the terms of the Apache License.

This demo will focus on Heat, the component responsible for the orchestration of multiple composite cloud applications using templates, through both an OpenStack-native REST API and a CloudFormation-compatible Query API. A Heat template describes the infrastructure for a cloud application in a text file that is readable and writable by humans. Heat consumes the description provided in the template in order to automatically instantiate the corresponding infrastructure within OpenStack.

The demo will present a general overview of the Heat component and its architecture, together with a live demonstration on how to create (and delete) in one step the resources of the multi-tier application which was deployed in the OpenStack hands-on laboratory held at CNAF. A description of a relevant template for the autoscaling of resources will also be provided.